

AS the water soluble salts silver nitrate and zinc nitrate, the somewhat water soluble salts silver lactate (67 mg/ml water) and silver acetate (10 mg/ml water), the slightly soluble salt silver citrate (0.3 mg/ml water), the poorly soluble salt silver chloride (0.002 mg/ml water), and the very poorly soluble salt silver iodide (0.00003 mg/ml water). By adjusting the proportions of salts having different solubilities in the composition, the release rate of the active oligodynamic agent(s) can be altered to provide a shorter or longer release profile over time.

In the Claims

Please amend Claims 1, and 5-13 as follows:

AG 1. (Amended) An article of manufacture comprising a substrate and an antimicrobial polymer coating, wherein the polymer coating comprises one or more polymers and a colloid, wherein the colloid comprises oligodynamic metal compounds, wherein the oligodynamic metal compounds are a plurality of metal salts, a plurality of metal oxides, or a combination of at least one metal salt and at least one metal oxide.

A7 5. (Amended) The article of Claim 1 wherein the polymer comprises one or more hydrophilic polymers that are soluble in water or in an organic solvent containing water, one or more hydrophobic polymers, or a combination of both hydrophilic and hydrophobic polymers.

Sub B3 6. (Amended) The article of Claim 5 wherein the hydrophilic polymer is selected from the group consisting of polyurethanes, polyvinylpyrrolidones, polyvinyl alcohols,

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polyethylene glycols, polypropylene glycols, polyoxyethylenes, polyacrylic acid, polyacrylamide, carboxymethyl cellulose, cellulose and its derivatives, dextrans, polysaccharides, starches, guar, xanthan and other gums, collagen, gelatins, biological polymers, and mixtures and copolymers thereof.

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7. (Amended) The article of Claim 5 wherein the hydrophobic polymer is selected from the group consisting of polytetrafluoroethylene, polyvinyl chloride, polyvinylacetate, poly(ethylene terephthalate), silicone, polyesters, polyamides, polyureas, styrene-block copolymers, polymethyl methacrylate, polyacrylates, acrylic-butadiene-styrene copolymers, polyethylene, polystyrene, polypropylene, natural and synthetic rubbers, acrylonitrile rubber, and mixtures, derivatives, and copolymers thereof.

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8. (Amended) The article of Claim 1 wherein the oligodynamic metal compounds comprise silver.

9. (Amended) The article of Claim 8 wherein silver is present in a compound selected from the group consisting of silver chloride, silver iodide, silver citrate, silver lactate, silver acetate, silver propionate, silver salicylate, silver bromide, silver ascorbate, silver laurel sulfate, silver phosphate, silver sulfate, silver oxide, silver benzoate, silver carbonate, silver sulfadiazine, silver gluconate, and combinations thereof.

10. (Amended) The article of Claim 1 wherein the oligodynamic metal compounds comprise more than one oligodynamic metal.

11. (Amended) The article of Claim 1 wherein the oligodynamic metal compounds comprise compounds having different solubilities in water.

12. (Amended) The article of Claim 11 wherein the oligodynamic metal compounds comprise silver lactate, silver acetate, silver citrate, silver chloride, and silver iodide.

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13. (Amended) An article of manufacture comprising one or more polymers and a colloid wherein the colloid comprises one or more oligodynamic metal compounds, wherein the oligodynamic metal compounds are a plurality of metal salts, a plurality of metal oxides, or a combination of at least one metal salt and at least one metal oxide.

Please cancel Claims 14-34.

Please add the following new claims:

20 41. (New) The article of Claim 1, wherein the coating is located on one or more exposed surfaces of the article.

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21 42. (New) The article of Claim 1, wherein the article will release at least some oligodynamic metal into aqueous fluids that come into contact with an exposed surface of the article.

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43. (New) An article of manufacture comprising a substrate and an antimicrobial polymer coating, wherein the polymer coating comprises one or more polymers and a colloid, wherein the colloid comprises one or more oligodynamic metal compounds, wherein the oligodynamic metal compounds are at least one metal salt, at least one metal oxide, or a combination of at least one metal salt and at least one metal oxide.

44. (New) The article of Claim 43, wherein the coating is located on one or more exposed surfaces of the article.

²³~~45~~. (New) The article of Claim ²²~~43~~ wherein the article will release at least some oligodynamic metal into aqueous fluids that come into contact with an exposed surface of the article.

46. (New) The article of Claim 43 wherein the article is a medical device.

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47. (New) The article of Claim ~~43~~ wherein the article is a catheter, an endotracheal tube, a tracheostomy tube, a wound drainage device, a wound dressing, a stent, an implant, an intravenous catheter, a medical adhesive, a suture, a shunt, a glove, a condom, a contact lens, a gastrostomy tube, medical tubing, cardiovascular products, heart valves, pacemaker leads, a guidewire, or urine collection devices.

²⁵~~46~~. (New) The article of Claim ²²~~43~~ wherein the article is a catheter.

²⁴~~49~~. (New) The article of Claim ²²~~43~~ wherein the polymer comprises one or more hydrophilic polymers that are soluble in water or in an organic solvent containing water, one or more hydrophobic polymers, or a combination of both hydrophilic and hydrophobic polymers.

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50. (New) The article of Claim 49 wherein the hydrophilic polymer is selected from the group consisting of polyurethanes, polyvinylpyrrolidones, polyvinyl alcohols, polyethylene glycols, polypropylene glycols, polyoxyethylenes, polyacrylic acid, polyacrylamide, carboxymethyl cellulose, cellulose and its derivatives, dextrans, polysaccharides, starches, guar, xanthan and other gums, collagen, gelatins, biological polymers, and mixtures and copolymers thereof.

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51. (New) The article of Claim 49 wherein the hydrophobic polymer is selected from the group consisting of polytetrafluoroethylene, polyvinyl chloride, polyvinylacetate, poly(ethylene terephthalate), silicone, polyesters, polyamides, polyureas, styrene-block copolymers, polymethyl methacrylate, polyacrylates, acrylic-butadiene-styrene copolymers, polyethylene, polystyrene, polypropylene, natural and synthetic rubbers, acrylonitrile rubber, and mixtures, derivatives, and copolymers thereof.

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²⁹~~52~~. (New) The article of Claim ²²~~43~~ wherein the oligodynamic metal compounds comprise silver.

³⁰~~53~~. (New) The article of Claim ²⁹~~52~~ wherein silver is present in a compound selected from the group consisting of silver chloride, silver iodide, silver citrate, silver lactate, silver acetate, silver propionate, silver salicylate, silver bromide, silver ascorbate, silver laurel sulfate, silver phosphate, silver sulfate, silver oxide, silver benzoate, silver carbonate, silver sulfadiazine, silver gluconate, and combinations thereof.

³¹~~54~~. (New) The article of Claim ²²~~43~~ wherein the oligodynamic metal compounds comprise more than one oligodynamic metal.

³²~~55~~. (New) The article of Claim ²²~~43~~ wherein the oligodynamic metal compounds comprise compounds having different solubilities in water.

³³~~56~~. (New) The article of Claim ³²~~55~~ wherein the oligodynamic metal compounds comprise silver lactate, silver acetate, silver citrate, silver chloride, and silver iodide.